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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,326	09/30/2003	Chi-Shen Lee	LEEC3075/EM	2258
23364	7590	06/28/2006		
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314				
			EXAMINER MCPHERSON, JOHN A	
			ART UNIT 1756	PAPER NUMBER

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/673,326	Applicant(s) LEE ET AL.	
	Examiner John A. McPherson	Art Unit 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 50, 40, 31, 41, 51, 42, 52, 32, 63, 64, 65, 71 and 72 (see Figures 1b-j). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 8 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form.

Claim 8 presents the limitation "wherein said method forming for the first metal wiring layer can be a selective deposition method, and the selective deposition method uses the selective conducting wiring layout to deposit the metal on the right position", however claim 1 already requires this limitation in lines 9-11.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the first masking process" in lines 5-6. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the wiring layout" in lines 10-11. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the second masking process" in line 14. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the contact window" in lines 14-15. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the third masking process" in line 16. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the second metal wiring layer" in lines 17-18.

There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 4, the phrase "such as" (line 4) renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 4 presents the limitation "wherein the deposition process can be *against of multi-layer materials and structural layers induced from metal materials such as diffusion, and adhesion before the step of forming the first metal wire*". However, it is unclear what Applicant intends by "*against of multi-layer materials and structural layers induced from metal materials such as diffusion, and adhesion before the step of forming the first metal wire*" as it relates to the deposition process of the present invention. Specifically, this limitation does not appear to describe a deposition process.

Regarding claim 5, the phrase "such as" (line 5) renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 5 presents the limitation "wherein said second metal wires can be Al, Cu, Ag, Mo, Cr, Ti, or W as well as low-resistance metals, other alloy materials, *or the induced material such as diffusion, and adhesion with multi-layer structure of the metal material*". However, it is unclear what Applicant intends by "*or the induced material such as diffusion, and adhesion with multi-layer structure of the metal material*" as it relates to the second metal wires. Specifically, this limitation does not appear to describe the composition of the second metal wires.

Claim 6 recites the limitation "the forth masking process" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 presents the limitation "wherein the A-Si layer can be made of A-Si, or poly-Si materials". However, it is unclear what Applicant intends by this statement, because it appears that an A-Si (amorphous silicon) layer must be made of A-Si, and that it could not be made of poly-Si (polycrystalline silicon).

Claim 10 presents the limitation "wherein the passivation layer can be made of SiO₂, silicon nitride, or other organic materials. However, SiO₂ and silicon nitride are inorganic materials, not organic materials. Accordingly, is not clear if organic materials are within the scope of this claim.

Pertinent Prior Art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,822,702 discloses a method of forming an active plate for a liquid crystal display comprising the steps of forming source and drain conductors, pixel electrodes and column electrodes by depositing and patterning a transparent conductive layer; and selectively plating areas of the transparent conductor layer to form a metallic layer for reducing the resistivity of the transparent conductive layer.

US 2002/0093600 discloses a method of fabricating an array substrate for a liquid crystal display device comprising the steps of forming a first metal layer on a substrate, forming a gate line and a gate electrode, forming a gate insulation layer to

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cover the first metal layer, forming a pure amorphous silicon layer and a doped amorphous silicon layer on the gate insulation layer, forming an ohmic contact layer and an active layer over the gate electrode, forming a transparent conductive material on the gate insulation layer to cover the active layer and the ohmic contact layer, forming a photoresist layer on the transparent conductive material, patterning the photoresist layer using a mask, forming a data line, a pixel electrode, a source electrode and a drain electrode, and forming a second metal layer on an entire surface of the data line.

US 5,663,575 discloses method of forming a liquid crystal display comprising the steps of providing a transparent conductive electrode as a lower electrode of a gate line and a storage capacitor, wherein the transparent conductive electrode has a plurality of sections removed so as to form a ladder or mesh structure, and depositing an anodic oxidative metal on the whole surface of the transparent conductive film after forming a gate electrode.

Allowable Subject Matter

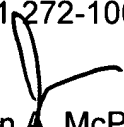
5. Claims 1-10 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. McPherson whose telephone number is (571) 272-1386. The examiner can normally be reached on Monday through Friday, 8:00 AM to 4:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John A. McPherson
Primary Examiner
Art Unit 1756

JAM
6/21/06